

5            converting means for converting and power factor  
6            correcting the dc signal to a second ac signal;  
7            transforming means for transforming the second ac  
8            signal into a third ac signal having a current suitable for  
9            welding; and  
10           output means for providing a welding current.

#### REMARKS

The Examiner rejected all of the claims under 35 USC § 112. Response is hereby made to that rejection.

The Examiner rejected claims 1-8 because "the third ac signal" of line 14, claim 1, lacked antecedent basis. The Examiner's attention is directed to lines 12 and 13 of claim 1, which recite "a third ac signal...".

The Examiner rejected claims 1-8 because "the inverter" of line 18, claim 1, lacked antecedent basis. Claim 1, line 18, has been amended to refer to "converter".

The Examiner held that the specification failed to provide the description of the power factor correction aspect of applicants invention. The Examiner stated that the power factor correction disclosure read, in its entirety, "a Unitrode power factor correction chip is used to implement boost circuit 102 in the preferred embodiment and requires average current close an input.".

Applicant respectfully submit that section does disclose the use of a power factor correction circuit, and teaches what type of input the chip needs -- average current. Additionally, the preceding sentence of the disclosure explains that the current feedback is obtained from shunt S1 one (on Figure 1). One skilled in the art will recognize that the dc signal at S1 is not a constant magnitude signal, rather it is of a single polarity, having a sinusoidal component. One skilled in the art will also recognize that power factor correction means the current through S1 will be forced into phase with the voltage -- that is what PFC entails. Applicants describe this as being

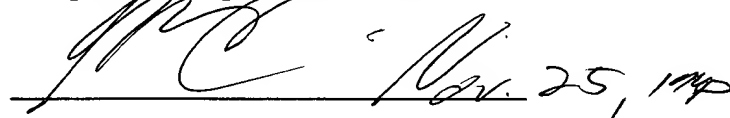
accomplished by timing the switching of the IGBT to draw current in phase with the sinusoidal component of the voltage at S1.

Applicant does not contend he has invented a power factor correction chip (indeed, he specifically recites using a commercially available chip). Rather, Applicant's invention includes the recognition that using the chip in the location described in the specification -- connected to a boost converter, in a welding power supply -- is inventive. This use, is adequately described as required by 35 U.S.C. section 112.

Applicant respectfully requested the Examiner reconsider his rejections and withdraw them. Alternatively, applicants respectfully requested that the Examiner enter this amendment as it will place the application and better condition for appeal.

Accordingly, Applicants respectfully submit the claims are in condition for allowance, and earnestly solicit a notice to that effect. If the Examiner believes a terminal disclaimer is still necessary and sufficient for allowing the claims, the Examiner is invited to telephone the Attorney below, who will provide the terminal disclaimer.

Respectfully Submitted

A handwritten signature in dark ink, appearing to read 'G. R. Corrigan', is written over a horizontal line. To the right of the signature, the date 'Nov. 25, 1998' is handwritten.

George R. Corrigan, Reg. No. 34,803  
Corrigan Law Office  
5 Briarcliff Court  
Appleton, WI 54915  
(920)